

IN THE CLAIMS

Please amend claims 1 thru 31, and add claims 34 and 35, as follows:

Please amend claims 1 thru 31, and add claims 34 and 35, as follows:

1 1. (Currently Amended) A filter layer for a display, comprising:
2 oxide particles; and
3 nano-sized metal particulates coated on and adhered to a surface of the oxide
4 particles ~~[[with]]~~ so as to form a corresponding interface therebetween, and to trigger a
5 surface plasma resonance phenomenon ~~being triggered at said~~ corresponding ~~interfaces of~~
6 ~~the nano-sized metal particulates and~~ interface between the oxide particles and the
7 nanoxized metal particulates, and to selectively absorb light at at least ~~[[at]]~~ one
8 predetermined wavelength of light.

1 2. (Currently Amended) The filter layer of claim 1, ~~further comprised of~~ a metal
2 of the nano-sized metal particulates being selected from the group consisting of a
3 transition metal, an alkali metal, an alkali earth metal, and mixtures of any of a transition
4 metal, an alkali metal and an alkali earth metal.

1 3. (Currently Amended) The filter layer of claim 1, ~~further comprised of~~ a metal
2 of the nano-sized metal particulates being selected from the group consisting of Au, Ag,

3 Pd, Pt, Cu, Ni, Sb, Sn, Zn, Zr, Se, Cr, Al, Ti, Ge, Fe, W, Pb₂ and mixtures of any of Au,
4 Ag, Pd, Pt, Cu, Ni, Sb, Sn, Zn, Zr, Se, Cr, Al, Ti, Ge, Fe, W and Pb.

1 4. (Currently Amended) The filter layer of claim 1, ~~further comprised of~~ an oxide
2 of the oxide particles being selected from the group consisting of an oxide, a silica, a
3 titania, a zirconia, an alumina₂ and mixtures of any of an oxide, a silica, a titania, a
4 zirconia and an alumina.

1 5. (Currently Amended) The filter layer of claim 1, ~~further comprised of~~ an
2 amount of the nano-sized metal particulates being in range of ~~[[from]]~~ 0.001 to 0.5 mole
3 percent on a basis of the oxide particles.

1 6. (Currently Amended) The filter layer of claim 1, ~~further comprised of~~ the
2 nano-sized metal particulates each being of a size within a range of greater than 1
3 nanometer ~~[[but]]~~ and less than 1 micrometer in diameter.

1 7. (Currently Amended) A process of preparing a filter layer ~~prepared by a~~
2 ~~process~~, ~~[[the]]~~ said process comprising:

3 dispersing an oxide in water to form an oxide sol;

4 adding a metal salt, a reducing agent, and a dispersing agent to an organic solvent
5 to prepare a metal colloid solution;

6 mixing the oxide sol with the metal colloid solution to prepare a coating solution
7 with a metal colloid of the metal colloid solution being dispersed in the oxide sol;
8 applying the coating solution on a face panel of a display to form a filter layer; and
9 drying the filter layer at room temperature.

1 8. (Currently Amended) The ~~filter layer prepared by the~~ process of claim 7,
2 further comprising the step, prior to the step of mixing the oxide sol with the metal
3 colloid solution, of controlling an absorption intensity and an absorption peak
4 wavelength of light by adjusting at least one factor selected from the group consisting of
5 kinds, contents and size of metal particulates of the metal colloid solution, and at least
6 one factor selected from the group consisting of kinds and contents of oxide particles of
7 the oxide, ~~prior to the step of mixing the oxide sol with the metal colloid solution.~~

1 9. (Currently Amended) A ~~display~~ cathode ray tube, comprising:
2 a face panel;
3 at least one filter layer formed on an inner surface of said face panel, ~~[[the]]~~ said at
4 least one filter layer comprising oxide particles and nano-sized metal particulates adhered
5 to surface of the oxide particles with a surface plasma resonance phenomenon being
6 triggered at corresponding interfaces of the nano-sized metal particulates and the oxide
7 particles to selectively absorb light at least at one predetermined wavelength of light; and
8 a phosphor layer formed on a filter layer of said at least one filter layer.

1 10. (Currently Amended) The ~~display~~ cathode ray tube of claim 9, further
2 ~~comprised of the display comprising a cathode ray tube, comprising:~~
3 ~~—— a face panel;~~
4 ~~—— at least one filter layer formed on an inner surface of the face panel, the at least~~
5 ~~one filter layer comprising oxide particles and nano-sized metal particulates adhered to a~~
6 ~~surface of the oxide particles, the~~ wherein said at least one filter layer providing provides
7 at least one selective absorption peak for light at a corresponding predetermined
8 wavelength of light by induction of [[a]] the surface plasma resonance phenomenon at the
9 corresponding interfaces between the nano-sized metal particulates and the oxide
10 particles; and
11 ~~—— a phosphor layer formed on a filter layer of the at least one filter layer.~~

1 11. (Currently Amended) The ~~display~~ cathode ray tube of claim 10, further
2 ~~comprised of the~~ said at least one filter layer including a plurality of kinds of metals and
3 oxides for the nano-sized metal particulates and the oxide particles to provide a plurality
4 of differing selective absorption peaks for corresponding wavelengths of light.

1 12. (Currently Amended) The ~~display~~ cathode ray tube of claim 10, further
2 ~~comprised of the~~ said at least one filter layer including a plurality of filter layers each
3 being formed to respectively provide a plurality of selective absorption peaks for light at

4 corresponding different wavelengths of light.

1 13. (Currently Amended) The ~~display~~ cathode ray tube of claim 9, further
2 ~~comprised of the display comprising a cathode ray tube, comprising:~~

3 ~~— a face panel;~~

4 wherein said at least one filter layer is formed on an outer surface of ~~[[the]]~~ said
5 face panel, ~~the at least one filter layer comprising oxide particles and nano-sized metal~~
6 ~~particulates adhered to a surface of the oxide particles, the at least one filter layer~~
7 ~~providing at least one selective absorption peak for light at a corresponding~~
8 ~~predetermined wavelength of light by induction of a surface plasma resonance~~
9 ~~phenomenon at corresponding interfaces between the nano-sized metal particulates and~~
10 ~~the oxide particles; and~~

11 ~~— a phosphor layer formed on an inner surface of the face panel.~~

1 14. (Currently Amended) The ~~display~~ cathode ray tube of claim 13, further
2 ~~comprised of the~~ said at least one filter layer including a plurality of kinds of metals and
3 oxides for the oxide particles and the nano-sized metal particulates to provide a plurality
4 of differing selective absorption peaks for corresponding wavelengths of light.

1 15. (Currently Amended) The ~~display~~ cathode ray tube of claim 13, further
2 ~~comprised of the~~ said at least one filter layer including a plurality of filter layers formed

3 to respectively provide a plurality of selective absorption peaks for light at
4 corresponding different wavelengths of light.

1 16. (Currently Amended) The ~~display~~ cathode ray tube of claim 13, further
2 comprising a conductive film located between the outer surface of [[the]] said face panel
3 and a filter layer of [[the]] said at least one filter layer.

1 17. (Currently Amended) The ~~display~~ cathode ray tube of claim 13, further
2 ~~comprised of the~~ said at least one filter layer providing an anti-reflection layer.

1 18. (Currently Amended) ~~The display of claim 9, further comprised of the display~~
2 ~~comprising a~~ A cathode ray tube, comprising:

3 a face panel;
4 at least one first filter layer formed on an inner surface of the face panel;
5 at least one second filter layer formed on an outer surface of the face panel; and
6 a phosphor layer formed on a filter layer of [[the]] said at least one the first filter
7 layer, [[the]] said at least one first filter layer and [[the]] said at least one second filter
8 layer each comprising oxide particles and nano-sized metal particulates adhered to a
9 surface of the oxide particles, [[the]] said at least one first filter layer and [[the]] said at
10 least one second filter layer each providing at least one selective absorption peak for light
11 at a corresponding predetermined wavelength of light by induction of a surface plasma

12 resonance phenomenon at corresponding interfaces between the nano-sized metal
13 particulates and the oxide particles.

1 19. (Currently Amended) The ~~display~~ cathode ray tube of claim 18, further
2 ~~comprised of wherein~~ any of ~~[[the]]~~ said at least one first filter layer and ~~[[the]]~~ said at
3 least one second filter layer ~~including~~ includes a plurality of metals and oxides for the
4 oxide particles and the nano-sized metal ~~particulates~~ particulates to provide a plurality of
5 differing selective absorption peaks for corresponding wavelengths of light.

1 20. (Currently Amended) The ~~display~~ cathode ray tube of claim 18. further
2 ~~comprised of wherein~~ any of ~~[[the]]~~ said at least one first filter layer and ~~[[the]]~~ said at
3 least one second filter layer ~~including~~ includes a plurality of filter layers formed to
4 respectively provide a plurality of selective absorption peaks for light at corresponding
5 different wavelengths of light.

1 21. (Currently Amended) The cathode ray tube of claim 18, further comprising a
2 conductive film located between the outer surface of the face panel and a filter layer of
3 ~~[[the]]~~ said at least one second filter layer.

1 22. (Currently Amended) The cathode ray tube of claim 18, ~~further comprised of~~
2 ~~the~~ said at least one second filter layer providing an anti-reflection layer.

23. (Currently Amended) ~~The display of claim 9, further comprised of the display comprising a~~ A plasma display panel, comprising:

a rear substrate including a plurality of address electrodes disposed on the rear substrate, and a first dielectric layer disposed on the rear substrate and covering the plurality of address electrodes;

a plurality of spacers disposed on the first dielectric layer, [[and]] adjacent ones of [[the]] said plurality of spacers being respectively positioned in opposing relation with respect to an address electrode of [[the]] said plurality of address electrodes to provide a corresponding discharge space;

a plurality of phosphor layers disposed on the first dielectric layer, each of [[the]] said plurality of phosphor layers being respectively formed in a corresponding discharge space provided by adjacent ones of [[the]] said plurality of spaces;

a front substrate including a plurality of scan electrodes and a plurality of common electrodes disposed on the front substrate in a direction transverse to a direction of [[the]] said plurality of address electrodes;

at least one filter layer disposed on [[the]] said front substrate and covering the plurality of scan electrodes and the plurality of common electrodes, [[the]] said at least one filter layer comprising oxide particles and nano-sized metal particulates adhered to a surface of the oxide particles, [[the]] said at least one filter layer providing at least one selective absorption peak for light at a corresponding predetermined wavelength of light

21 by induction of a surface plasma resonance phenomenon at corresponding interfaces
22 between the nano-sized metal particulates and the oxide particles;

23 a second dielectric layer disposed on a filter layer of ~~[[the]]~~ said at least one filter
24 layer; and

25 a protective layer disposed on ~~[[the]]~~ said second dielectric layer.

1 24. (Currently Amended) The plasma display panel of claim 23, ~~further~~
2 ~~comprised of the~~ said at least one filter layer including a plurality of kinds of metals and
3 oxides for the oxide particles and the nano-sized metal particulates to provide a plurality
4 of differing selective absorption peaks for corresponding wavelengths of light.

1 25. (Currently Amended) The plasma display panel of claim 23, ~~further~~
2 ~~comprised of the~~ said at least one filter layer including a plurality of filter layers formed
3 to respectively provide a plurality of selective absorption peaks for light at corresponding
4 different wavelengths of light.

1 26. (Currently Amended) ~~The display of claim 9, further comprised of the~~
2 ~~display comprising a~~ A plasma display panel, comprising:

3 a rear substrate including a plurality of address electrodes disposed on the rear
4 substrate, and a first dielectric layer disposed on the rear substrate and covering the
5 plurality of address electrodes;

6 a plurality of spacers disposed on the first dielectric layer, [[and]] adjacent ones of
7 [[the]] said plurality of spacers being respectively positioned in opposing relation with
8 respect to an address electrode of [[the]] said plurality of [[the]] address electrodes to
9 provide a corresponding discharge space;

10 a plurality of phosphor layers disposed on the first dielectric layer, each of [[the]]
11 said plurality of phosphor layers being respectively formed in a corresponding discharge
12 space provided by adjacent ones of [[the]] said plurality of spacers;

13 a front substrate including a plurality of scan electrodes and a plurality of common
14 electrodes disposed on the front substrate in a direction transverse to a direction of [[the]]
15 said plurality of address electrodes, and a second dielectric layer disposed on [[the]] said
16 front substrate and covering [[the]] said plurality of scan electrodes and [[the]] said
17 plurality of common electrodes;

18 at least one filter layer disposed on the second dielectric layer, [[the]] said at least
19 one filter layer comprising oxide particles and nano-sized metal particulates adhered to a
20 surface of the oxide particles, [[the]] said at least one filter layer providing at least one
21 selective absorption peak for light at a corresponding predetermined wavelength of light
22 by induction of a surface plasma resonance phenomenon at corresponding interfaces
23 between the nano-sized metal particulates and the oxide particles;

24 a third dielectric layer disposed on a filter layer of [[the]] said at least one filter
25 layer; and

26 a protective layer disposed on [[the]] said third dielectric layer.

1 27. (Currently Amended) The plasma display panel of claim 26, further
2 ~~comprised of the~~ said at least one filter layer including a plurality of kinds of metals and
3 oxides for the oxide particles and the nano-sized metal particulates to provide a plurality
4 of differing selective absorption peaks for corresponding wavelengths of light.

1 28. (Currently Amended) The plasma display panel of claim 26, further
2 ~~comprised of the~~ said at least one filter layer including a plurality of filter layers formed
3 to respectively provide a plurality of selective absorption peaks for light at corresponding
4 different wavelengths of light.

1 29. (Currently Amended) ~~The display of claim 9, further comprised of the display~~
2 ~~comprising a~~ A plasma display panel, comprising:

3 a rear substrate including a plurality of address electrodes disposed on the rear
4 substrate, and a first dielectric layer disposed on the rear substrate and covering the
5 plurality of address electrodes;

6 a plurality of spacers disposed on the first dielectric layer, ~~[[and]]~~ adjacent ones of
7 the plurality of spacers being respectively positioned in opposing relation with respect to
8 an address electrode of ~~[[the]]~~ said plurality of address electrodes to provide a
9 corresponding discharge space;

10 a plurality of phosphor layers disposed on the first dielectric layer, each of ~~[[the]]~~

11 said plurality of phosphor layers being respectively formed in a corresponding discharge
12 space provided by adjacent ones of ~~[[the]]~~ said plurality of spacers;

13 a front substrate including a plurality of scan electrodes and a plurality of common
14 electrodes disposed on the front substrate in a direction transverse to a direction of ~~[[the]]~~
15 said plurality of address electrodes, and a second dielectric layer disposed on ~~[[the]]~~ said
16 front substrate and covering ~~[[the]]~~ said plurality of scan electrodes and ~~[[the]]~~ said
17 plurality of common electrodes;

18 at least one filter layer disposed on ~~[[the]]~~ said second dielectric layer, ~~[[the]]~~ said
19 at least one filter layer comprising oxide particles and nano-sized metal particulates
20 adhered to a surface of the oxide particles, ~~[[the]]~~ said at least one filter layer providing
21 at least one selective absorption peak for light at a corresponding predetermined
22 wavelength of light by induction of a surface plasma resonance phenomenon at
23 corresponding interfaces between the nano-sized metal particulates and the oxide
24 particles; and

25 a protective layer disposed on a filter layer of ~~[[the]]~~ said at least one filter layer.

1 30. (Currently Amended) The plasma display panel of claim 29, ~~further~~
2 ~~comprised of the~~ said at least one filter layer including a plurality of kinds of metals and
3 oxides for the oxide particles and the nano-sized metal particulates to provide a plurality
4 of differing selective absorption peaks for corresponding wavelengths of light.

1 31. (Currently Amended) The plasma display panel of claim 29, ~~further~~
2 ~~comprised of the~~ said at least one filter layer including a plurality of filter layers formed
3 to respectively provide a plurality of selective absorption peaks for light at corresponding
4 different wavelengths of light.

1 32. (Original) A method of preparing a filter layer, comprising:
2 dispersing an oxide in water to form an oxide sol;
3 adding a metal salt, a reducing agent, and a dispersing agent to an organic solvent
4 to prepare a metal colloid solution;
5 mixing the oxide sol with the metal colloid solution to prepare a coating solution
6 with a metal colloid of the metal colloid solution being dispersed in the oxide sol;
7 applying the coating solution on a face panel of a display to form a filter layer; and
8 drying the filter layer at room temperature.

1 33. (Original) The method of claim 32, further comprising controlling an
2 absorption intensity and an absorption peak wavelength of light by adjusting at least one
3 factor selected from the group consisting of kinds, contents and size of metals
4 particulates of the metal colloid solution, and at least one factor selected from the group
5 consisting of kinds and contents of oxide particles of the oxide prior to the step of mixing
6 the oxide sol with the metal colloid solution.

1 34. (New) A filter layer prepared by the process of claim 8,

1 35. (New) A filter layer prepared by the process of claim 7,